

CLAIMS

1. An organic semiconductor device comprising a gate insulating film characterized in that said gate insulating film is a polymeric insulating film formed by a polymerization method.
2. An organic semiconductor device according to claim 1, further comprising a substrate, wherein there are formed on said substrate, a gate electrode, a source electrode, a drain electrode, and an organic semiconductor film.
3. An organic semiconductor device according to claim 2, wherein the organic semiconductor device is an organic MIS TFT.
4. An organic semiconductor device according to any one of claims 1 to 3, wherein said gate insulating film contains poly(1,4-bis(2-methylstyryl)benzene) as a main component.
5. An organic semiconductor device according to any one of claims 1 to 3, wherein said gate insulating film contains polypyrrole as a main component.
6. An organic semiconductor device according to any one of claims 1 to 3, wherein said gate insulating film contains poly-1-aminopyrrole as a main component.
7. A method of manufacturing an organic semiconductor device,

characterized by comprising the steps of:

- forming a gate electrode on a substrate;
- forming a gate insulating film by a polymeric insulating film formed by a polymerization method;
- forming source and drain electrodes; and
- forming an organic semiconductor film.

8. A method of manufacturing an organic semiconductor device according to claim 7, wherein the organic semiconductor device is an organic MIS TFT.

9. A method of manufacturing an organic semiconductor device according to claim 7 or 8, wherein said step of forming the gate insulating film includes forming the gate insulating film including poly(1,4-bis(2-methylstyryl)benzene) as a main component.

10. A method of manufacturing an organic semiconductor device according to claim 7 or 8, wherein said step of forming the gate insulating film includes forming the gate insulating film including polypyrrole as a main component.

11. A method of manufacturing an organic semiconductor device according to claim 7 or 8, wherein said step of forming the gate insulating film includes forming the gate insulating film including poly-1-aminopyrrole as a main component.

12. A method of manufacturing an organic semiconductor device according to claim 7 or 8, wherein an electric field is applied through the gate electrode in said step of forming the gate insulating film.